

## Method of reducing the NOx-emissions during combustion of nitrogen-containing fuels

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### Abstract

A method of reducing the NOx-emissions during combustion of nitrogen-containing fuels via burner units each including a primary burner and being arranged in a wall of a closed combustion chamber; fuel and air for combustion are supplied to the burner flame in stages as partial flows via delivery means which are separate from one another. With a number of primary burners being arranged one above the other the method is carried out in three steps: feeding coal dust along with its carrier gas to the primary burner and generating a primary flame zone having a strong internal back flow region and burning the coal dust under fuel-rich conditions, feeding reduction fuel into the combustion chamber and generating a secondary flame zone in the vicinity of the primary flame zone and being operated under more-fuel-rich conditions than the primary flame zone, feeding reduction fuel into the combustion chamber and generating a secondary flame zone in the vicinity of the primary flame zone and being operated under more-fuel-rich conditions than the primary flame zone, and feeding stale air into the combustion of the secondary flame zone and being operated under fuel lean conditions.

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